

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Appl. No. 10/042,381 (Q68032)

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A sheet package producing system for producing a sheet package having a predetermined number of sheets, comprising:

cutting/stacking means for forming said sheets by cutting continuous sheet at a regular length, and for stacking said sheets in said predetermined number;

covered sheet stack producing means for ~~covering at least a portion of a top or bottom surface of~~ folding a protective cover around at least a portion of said stacked sheets ~~with a protective cover~~, to obtain a covered sheet stack; and

packaging means for packaging said covered sheet stack to obtain said sheet package;

wherein said cutting/stacking means, said covered sheet stack producing means and said packaging means are connected in series with one another.

2. (previously presented): A sheet package producing system as defined in claim 1, wherein said cutting/stacking means, said covered sheet stack producing means and said packaging means are balanced in line capacity balance relative to one another.

3. (previously presented): A sheet package producing system for producing a sheet package having a predetermined number of sheets, comprising:

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cutting/stacking means for forming said sheets by cutting continuous sheet at a regular length, and for stacking said sheets in said predetermined number;

covered sheet stack producing means for covering said stacked sheets with a protective cover, to obtain a covered sheet stack; and

packaging means for packaging said covered sheet stack to obtain said sheet package;

wherein said cutting/stacking means, said covered sheet stack producing means and said packaging means are connected in series with one another;

wherein said protective cover includes transversely extending plural bending lines for defining first, second and third portions, said first portion being positioned on an end face of said stacked sheets, said second and third portions being positioned on upper and lower faces of said stacked sheets; and

wherein said covered sheet stack producing means includes:

first handling means for placing either one of said second portion and said stacked sheets on an upper surface of a remaining one thereof;

folding means for folding said protective cover along said plural bending lines, and for squeezing said stacked sheets between said second and third portions, to obtain said covered sheet stack.

4. (previously presented): A sheet package producing system as defined in claim 3, wherein said cutting/stacking means includes:

supply means for feeding said continuous sheet;

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cutter means for cutting said continuous sheet to obtain said sheets; and

stacker means for stacking said sheets in said predetermined number.

5. (previously presented): A sheet package producing system as defined in claim 4, wherein said first handling means places said second portion of said protective cover on said stacked sheets;

further comprising second handling means for turning over a sheet orientation of said stacked sheets to locate said protective cover under said stacked sheets, and then for setting said protective cover and said stacked sheets to said folding means;

said folding means folds said protective cover by bending upward said third portion.

6. (previously presented): A sheet package producing system as defined in claim 5, wherein said cutting/stacking means further includes synchronizing means for synchronizing said supply means, said cutter means and said stacker means with one another.

7. (previously presented): A sheet package producing system as defined in claim 6, wherein said supply means, said cutter means and said stacker means include respectively drive power sources;

said synchronizing means electrically synchronizes said drive power sources.

8. (previously presented): A sheet package producing system as defined in claim 6, wherein said cutting/stacking means further includes:

a drive power source incorporated in one of said supply means, said cutter means and said stacker means; and

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two transmission couplings for transmitting force of driving of said drive power source to remaining two of said supply means, said cutter means and said stacker means, to constitute said synchronizing means.

9. (previously presented): A sheet package producing system as defined in claim 8, wherein said drive power source is incorporated in said cutter means.

10. (previously presented): A sheet package producing system as defined in claim 5, wherein said covered sheet stack producing means further includes pre-bending means, actuated earlier than said folding means, for bending said protective cover temporarily by forcibly depressing said third portion;

said first handling means sets said protective cover on said pre-bending means, and then places said protective cover on said stacked sheets.

11. (previously presented): A sheet package producing system as defined in claim 10, wherein said second handling means includes:

sheet chuck means for capturing said stacked sheets;

moving robot arm means for moving said sheet chuck means; and

rotating means, secured to said sheet chuck or said moving robot arm means, for rotating said sheet chuck means to turn over said sheet orientation.

12. (previously presented): A sheet package producing system as defined in claim 11, wherein said first handling means includes:

cover suction pad means for sucking said protective cover;

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cover moving robot arm means for moving said cover suction pad means.

13. (previously presented): A sheet package producing system as defined in claim 5,
wherein said packaging means includes:

bag packaging means for packaging said covered sheet stack in a packaging bag;

box packaging means for packaging said covered sheet stack in an outer box after
packaging in said packaging bag, to obtain said sheet package.

14. (previously presented): A sheet package producing system as defined in claim 13,
wherein said bag packaging means includes:

stack feeding means for feeding said covered sheet stack;

first means for wrapping said covered sheet stack with bag material; and

second means for folding a margin flap of said bag material wrapping said covered sheet
stack, to form enclosure of said covered sheet stack in said packaging bag.

15. (previously presented): A sheet package producing system as defined in claim 14,
wherein said box packaging means includes:

box forming means for forming said outer box by bending a plate material or sheet
material; and

box inserting means for inserting said covered sheet stack into said outer box after
packaging in said packaging bag.

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16. (previously presented): A sheet package producing system as defined in claim 5, wherein said cutting/stacking means further includes decurler means for eliminating or reducing a curling tendency of said continuous sheet.

17. (previously presented): A sheet package producing system as defined in claim 1, wherein each of said cutting/stacking means, said covered sheet stack producing means and said packaging means includes:

plural modules; and

a pallet, disposed in each of said plural modules, having a size predetermined in consideration of a maximum size of said sheets, for supporting said continuous sheet, said sheets, said protective cover, said covered sheet stack or said sheet package.
